Responding to an Emerging Humanitarian Crisis in Louisiana and Mississippi:

Urgent Need for a Health Care "Marshall Plan"



Operation Assist

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Introduction

It is now clear that massive challenges are facing the recovery efforts in the Gulf Coast region ravaged by Hurricanes Katrina and Rita, as well as the flooding of New Orleans. Evacuees from the hardest hit communities who are currently in extended shelter status, particularly those with limited economic means, may already formally fall under internationally accepted definitions of "internally displaced persons" (as distinct from "refugees" who cross international borders to escape persecution). More than 50% of the New Orleans pre-Katrina population of nearly 500,000 has not yet returned. Some have dispersed to other parts of Louisiana or many other states and may, in fact, be resettled with some success.

For tens of thousands of other individuals and families, however, prospects for resettlement are dim at best. Housing reconstruction in affected areas has not yet begun, destroyed communities are frozen in rubble which has hardly changed since last September, decisions about re-establishing health care facilities and schools are stalled and, all the while, displaced, economically fragile children and their families are trapped in circumstances which undermine access to health care, social support and opportunity for livelihood.

There is little concrete hope in the short or medium term for many of these internally displaced families. All of them, especially children, are subject to severe long-term stress and worsening chronic health conditions. In addition, most of them were already at excessive social and medical risk prior to September 2005.

When Hurricane Katrina ravaged the Gulf Coast on August 29, 2005, it clearly brought with it the worst devastation from a natural disaster in our country's history. It also revealed long-standing problems that continue to afflict many of our nation's cities and states, especially their poorest communities. As the recovery and rebuilding from Katrina progresses, we have the opportunity to address underlying problems that pre-dated the hurricane and undermine the health and well-being of the nation's most vulnerable, medically underserved children.

A series of telephone surveys and structured observations by health and social services professionals over the past few months have underscored some of the major concerns emerging among displaced individuals. A new study, the first comprehensive face-to-face field survey of residents in FEMA shelters based in Louisiana, conducted in February 2006 by David Abramson PhD, MPH and Richard Garfield RN, DrPH, has documented a series of extremely urgent needs which must be evaluated and addressed as quickly as possible. Failure to address these needs will potentially lead to permanent, highly significant consequences on the health, mental health, education and well-being of thousands of children and their families. The study, "On the Edge: Children and Families Displaced by Hurricanes Katrina and Rita Face a Looming Medical and Mental Health Crisis,"* was part of an ongoing needs assessment by Operation Assist, a collaborative effort of the Children's Health Fund and The National Center for Disaster Preparedness at the Columbia University Mailman School of Public Health.

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^{*} The Executive Summary of "On the Edge" is appended to this White Paper.

Besides these formal public health surveys, Operation Assist's appreciation for the conditions in the Gulf are also informed by a continuing clinical presence of medical teams and mobile medical units providing health and mental health services to thousands of children and their parents.

Background

The current, precarious state of child health access in the Gulf Coast region is underscored by the fragile circumstances that pre-dated Hurricane Katrina. Child health indicators in the two hardest hit states, Louisiana and Mississippi, are the worst in the country – Mississippi ranks 50th among the states, and Louisiana 49th. Data from the Annie E. Casey Foundation show that:

- These states have among the worst infant mortality rates (10.3 deaths per 1,000 live births in each state compared with 7.0 for the United States) and percent of low birth weight babies (11.2% of live births and 10.4% respectively compared with 7.8% for the U.S.).
- Child death rates similarly exceed the national average (37 per 1,000 for Mississippi and 35 for Louisiana compared with 21 nationally).
- In Mississippi, nearly one-third of children (31%) lived in poverty before Katrina as did 30% in Louisiana, compared with an already too-high 18% of children in the U.S.

As of July 2005 – the month before Katrina hit – 11.7% of children in Mississippi were uninsured, as were 15.4% in Louisiana. In each state, the American Academy of Pediatrics estimates that more than three-fourths (77%) were eligible but not enrolled in either Medicaid or the State Child Health Insurance Program (SCHIP). Access to health care was further compromised by non-financial barriers. The Mississippi Health Policy Research Center found an inequitable distribution of physicians throughout Mississippi, with only 12% of physicians practicing in the Delta region, which has the highest poverty rate in the state. More than half of the doctors in the state practice in four urban areas, with 51 of Mississippi's 82 counties medically underserved and health professional shortage areas. Additionally, the lack of adequate transportation infrastructure in medically disadvantaged communities in Louisiana and Mississippi presents significant barriers to access.

With this baseline of high child poverty and restricted access to health care, Hurricane Katrina was especially powerful in its impact on children and families.

- RAND Health reports that in Louisiana, Charity Hospital, the second oldest public hospital in the country and a major source of care for New Orleans' poor, closed for the first time since 1736. So did the rest of the Medical Center of Louisiana at New Orleans, an important part of the state's public hospital infrastructure.
- Charity Hospital had functioned as the Level I trauma center for the Gulf Coast region. The Kaiser Family Foundation reports that in 2003, this hospital provided 407,000 outpatient visits, 144,000 emergency room visits, and 25,000 discharges. With Charity Hospital now a lost resource, the nearest Level I trauma centers is at least 150 miles from New Orleans, in Alabama and Texas. Louisiana State University and the federal Department of Veteran Affairs announced in February a joint venture to build two new teaching hospitals in downtown New Orleans. Earlier cost estimates to rebuild

- Charity were as high as \$250 million, and a more modern replacement facility would cost approximately \$350 million.
- The United States Government Accountability Office (GAO) reported an 80 percent decline in staffed beds from pre-Katrina levels. Additionally, of the nine acute care hospitals that existed before Katrina, only three are operating at full capacity.
- As of February, of the 160 clinics operating before Katrina, only 19 remain open and operating below 50 percent capacity.
- There was a net loss of more than 6000 health professionals, including physicians, nurses, allied health professionals, dentists, etc.
- According to the National Association of Community Health Centers, an estimated 100 health centers were damaged by Katrina, and no fewer than seven centers, including their multiple service sites, were destroyed.
- Patients lost their medications and other necessities to meet special health care needs.
 Many of the pharmacies on which they had relied were destroyed. Many of the
 pharmacies that remained refused to fill prescriptions for patients whose Medicaid or
 insurance cards were lost in the hurricane. People with manageable chronic conditions
 like asthma and diabetes were placed at extreme health risk.
- Other cities and states are absorbing the hundreds of thousands evacuees from New Orleans and Gulf communities in Mississippi placing an unprecedented strain on their own health care and public health capacity.
- Public health needs are the most basic, as outlined in the *New England Journal of Medicine*: sanitation, hygiene, water safety, infection control, disease surveillance, the quality of the environment, and restoring or preserving health and mental health care access.
- The U.S. Department of Education estimates that 372,000 Mississippi and Louisiana children were displaced from the more than 700 schools that were forced to close following Katrina. Prior to the hurricane, the New Orleans public school system was widely considered to be among the worst in the nation, with only half of its students (96% of whom are African-American) graduating from high school.
- As reported by National Public Radio, more than 2,300 foster care children in Louisiana were displaced, and a month after the hurricane, 158 could not be accounted for. This already traumatized group of children is especially vulnerable to the psychological effects of a natural disaster.

Operation Assist

In response to this situation, The Children's Health Fund launched Operation Assist to bring emergency medical and mental health services to children and families hardest hit by Hurricane Katrina through the deployment of fully equipped, state of the art mobile medical units. A collaboration with the Mailman School of Public Health at Columbia University, Operation Assist is also addressing the public health impact of Katrina by providing needs assessment, prevention and management of infectious disease, and data collection and analysis for long-term planning.

In the six months following September 2005, Operation Assist provided care at more than 13,000 encounters at 38 sites in six states. Plans to provide ongoing comprehensive health

care in Biloxi/Gulfport Mississippi and New Orleans and Baton Rouge Louisiana are being finalized

Scientists from The Mailman School of Public Health are working in partnership with the Tulane University School of Public Health to study mold exposures and their impact on respiratory health since the hurricane. This follows up information provided by Operation Assist physicians that children who had been free of respiratory conditions are showing symptoms of asthma and require consistent asthma control medication.

Operation Assist's direct delivery of health and mental health services has been supplemented by a survey of evacuated families still in Louisiana conducted during February 2006 by The Mailman School of Public Health in partnership with the Louisiana Department of Health and Hospitals. A representative sample of 665 of households at trailer communities and hotels throughout the state reported information which further confirms that the deep fissures in the area's underlying health infrastructure have led to serious health and mental health problems affecting those families who had to leave their home following Katrina.

Key Findings from the Mailman study, "On the Edge"

- About one-third (34%) of children in FEMA-subsidized community settings had at least one chronic health condition which required medical management. However, nearly half of the children who had a medical home prior to Katrina no longer have a medical provider. Children whose asthma had been under control were using the emergency room or being hospitalized, in part because they were unable to get their medication. Lost medical records, disruptions in health insurance coverage, inability to get nebulizers and lack of access to a physician who could write a new prescription contributed to this problem.
- Mental health problems were prominent. Nearly half of the parents surveyed reported that their child showed new emotional or behavioral problems which emerged after the hurricane. Based on a standard mental health screening instrument, more than half of the mothers scored at a level consistent with a psychiatric diagnosis. Their children were two and a half times more likely to have emotional and behavioral problems since the hurricane.
- Approximately 20% of school-aged children are either not enrolled in school or miss more than 10 school days each month.
- become engaged in new health and education relationships, and undermined the family's ability to establish a sense of a predictable routine that would help their children to better cope with this difficult situation. On average, families moved 3.5 times since the hurricane, with some moving as many as nine times. Heads of household were not able to maintain their jobs, with no corresponding increase in public benefits to compensate for this economic loss.

Critical Background: Hurricane Katrina and the Legislative Agenda

The issues of health need and health access revealed by Hurricane Katrina emphasize the importance of decisions now being made in Washington regarding the future of Medicaid in the ongoing federal budget process. Last fall the House and Senate passed their respective Budget Reconciliation Bills. Budget Reconciliation, which began last April, with a Budget Resolution that directed certain House and the Senate committees to cut \$10 billion from Medicaid, had already been a long and contentious process even before Hurricane Katrina and its aftermath influenced the debate. However, the catastrophic toll exacted by Hurricane Katrina on the health care infrastructure in the Gulf States did little to influence the direction in which Congress was headed. Congress still moved forward with its plans to cut Medicaid.

The Senate approved a Budget Reconciliation Bill that would cut \$8 billion dollars from Medicaid, and the House passed a version that included \$12.8 billion in Medicaid cuts. The House bill was more stringent, proposing drastic changes to Medicaid in an effort to achieve the savings target directive. Most damaging were provisions that increased premiums and cost sharing on Medicaid beneficiaries and gave states flexibility to alter Medicaid benefit packages. If enacted, for the first time in Medicaid's history, states would be authorized to impose premiums on Medicaid beneficiaries with incomes above 100% of the federal poverty level (FPL). States would also be empowered to change benefits for certain beneficiaries.

Prior to the Deficit Reduction Act (DRA), Federal law protected certain Medicaid beneficiaries including children from cost sharing. Giving states greater flexibility to impose premiums and co-payments on families with children could have a devastating effect on child health access. In states that obtained federal waivers to implement cost sharing in their Medicaid or SCHIP programs, the Kaiser Family Foundation reported that people avoided going to see a doctor, had difficulty filling prescriptions, and had difficult getting and maintaining coverage. In Vermont, for example, SCHIP enrollment declined when premiums were increased.

Also in jeopardy in Medicaid reform are the preventive services so essential to healthy development and learning. The National Governor's Association (NGA) recommended that states be given greater flexibility to determine appropriate benefit packages, with the requirement for Early and Periodic Screening Diagnosis and Treatment (EPSDT) called into question. The following EPSDT services are in jeopardy: comprehensive health developmental history, comprehensive physical examination, immunization, lab tests including lead screening, vision, hearing and dental screening; and health education/anticipatory guidance. EPSDT also provides for "enabling" services to support access to care, including transportation. States such as Tennessee have already restricted EPSDT benefits based on a revised definition of "medically necessity." Under this NGA proposal, states would have the discretion, with or without supporting medical evidence, to decide what services are medically necessary and therefore should be covered.

Proposed Medicaid reforms could not have come at a worse time for the thousands of children and families displaced by Hurricane Katrina. Earlier relief packages considered by Congress included far reaching efforts to shore up the health care infrastructure. Senator Charles

Grassley and Senator Max Baucus reached a bi-partisan agreement in September, introducing legislation (S.1716) that would have provided emergency assistance to Louisiana, Mississippi and certain counties in Alabama. The legislation also would have established Disaster Relief Medicaid (DRM) for individuals, including evacuees. The Grassley bill came under heavy fire and was eventually defeated after four attempts to pass it. Instead, the Administration relied on emergency waivers to provide relief to states.

The waiver process fell far short of Grassley's proposal. It is unclear how states will recoup their losses as a result of increased Medicaid expenditures in the wake of Katrina. The waivers will not help individuals who do not meet current Medicaid eligibility requirements. States providing health care to evacuees also may not have a reliable reimbursement stream.

Current relief efforts are a significant departure from earlier relief proposals. The Department of Health and Human Services (HHS) continues to grant waivers (Louisiana was one of the last states to have its waiver approved), and the House and Senate passed Budget Reconciliation language that provided some matching payments for Medicaid and SCHIP services in select parishes and counties in Alabama, Mississippi and Louisiana. It appeared that guarantees put forth during the days following Hurricane Katrina to make those states whole had all but faded

Congress and the President's \$62.3 billion appropriation to the Federal Emergency Management Administration (FEMA) funded recovery and reconstruction efforts. Hospital systems in Louisiana such as the Medical Center of Louisiana at New Orleans (MCLNO), who were hit hardest, are eligible for aid under FEMA's Public Assistance program for repairs to restore facilities to conditions that existed prior to Katrina. However, the GAO indicated that funding streams remain tenuous. What is more, MCLNO facilities are only eligible for funds to the extent repairs are a result of wind and flood damage. GAO posits that it is unlikely that FEMA would fully fund the costs of building a complete reconstruction of a facility. Moreover, FEMA funds must be distributed to support a variety of efforts including housing reimbursement, military personnel, etc.

FEMA's limited support to hospital reconstruction, while important, represents a small fraction of the actions and the commitment that are necessary to rebuild an already broken health care system. Thousands of Katrina evacuee children and families are languishing without adequate health care. Studies conducted by the National Child Traumatic Stress Network suggest an alarming incidence of Post Traumatic Stress Disorder (PTSD) and other mental health disorders among Katrina evacuee children and their families. Studies estimated that up to 100,000 children will experience PTSD. Yet the DRA which the Congress approved and the President signed in February provided only \$2 billion to assist states with medical costs through a Medicaid Waiver program. Congress did not incorporate earlier proposals to establish comprehensive disaster relief programs that included DRM, 100 percent federal matching funds for Medicaid and SCHIP, and enhanced mental health services.

To the detriment of millions of children, the devastating impact of Hurricane Katrina also did not compel lawmakers to re-consider earlier proposals to alter the Medicaid program. Medicaid reforms in the House's budget bill, which permitted states to impose cost sharing

requirements on certain Medicaid beneficiaries and allowed states greater flexibility when determining benefit packages, ultimately found their way into the DRA. Giving states authority to impose cost-sharing on beneficiaries will result in new and substantial costs for about six million children from low-income families. The newly enacted law also permits states to streamline benefit packages, which will threaten the current EPSDT guarantee for about 28 million children.

Additional Katrina health care funding was also absent in the President's 2007 budget submission. At a time when children in the Gulf States are in tremendous need of mental health services, the level of funding for many programs such as the Children's Mental Health Program in the Substance Abuse and Mental Health Services Administration is unchanged from prior year funding levels. The budget also calls for the elimination of health profession grants when the affected regions are hemorrhaging health care professionals. These regions were already designated health professional shortage areas (HPSA) prior to Katrina. The budget would also eliminate the Preventive Health and Human Services Block Grant (PHHS) -- which funds chronic disease prevention, immunization, injury reduction programs, water fluoridation and food safety. The PHHS also provides some states with funding for dental services for low income families. Now is not the time to be cutting such vital programs, especially due to the increasing health care needs of people in the Gulf. Six months after Katrina, the problems are more salient than ever.

Recommendations to Congress and the President

Congress and the President must remain committed to the recovery efforts in the Gulf, especially as they relate to rebuilding the health care infrastructure. The Children's Health Fund and Operation Assist recommend, in the strongest possible terms, a highly focused, rapid response to create a new "safety-net" for the children and families now considered displaced for an extended period. Lives and well-being are at stake, so immediate considerations should include **the following 10 point emergency plan**:

- 1. Recognizing the urgency of the crisis affecting children and families in the Gulf Region, **congressional hearings should be scheduled as soon as possible** to bring the full scope of this emergency situation to the attention of national leaders, policy makers and the public.
- 2. The current Medicaid waiver process does not adequately address the needs of affected communities, and it places an undue economic burden on the states. We recommend that this policy be reconsidered, and that Disaster Relief Medicaid (DRM) funding, as was available in New York City post-9/11, become available. Features of DRM include temporary suspension of Medicaid eligibility requirements targeted at survivors of the federally declared disaster, time-limited coverage with full benefits, and most importantly a transition from DRM to permanent Medicaid, if eligible.
- **3.** Many of the devastated communities in Mississippi and Louisiana were designated Health Professional Shortage Areas prior to the Hurricane Katrina. Prior to Hurricane Katrina, 188 Health Professional Shortage Areas were designated throughout

Mississippi and Louisiana. Eight hundred and twenty-seven (827) primary care physicians were needed in order to achieve an optimal ratio of physician to patient (2000:1). Concurrently, 94 Dental Professional Shortage Areas exhibited need for 213 dentists to reach 3000 patients to every 1 dentist and 59 Mental Health Shortage Areas required 122 mental health professionals to achieve an acceptable ratio (10,000:1). Now, the need for health and mental health professionals is extreme, complicated by the loss of up to 6,000 established physicians in both states. This should be addressed through an emergency effort of the National Health Service Corps (NHSC) designed to bring at least 1,500 new professionals into Mississippi and Louisiana.

- 4. Until the proposed NHSC initiative can be brought on line, the U.S. Public Health Service, under the direction of the U.S. Surgeon General, should be immediately deployed to assist in efforts to provide needed care in the affected region. This force, consisting of appropriately trained medical and mental health professionals, should remain in the region, caring for medically underserved individuals, until there is a permanent solution in place.
- 5. Invest in community based health services with the goal of increasing the number of points of access to the health system. These could include fixed sites and mobile medical services in order to provide maximum flexibility.
- **6.** New advances in health technology should be harnessed to ensure continuity of care through electronic health records systems and establishment of statewide registries Additionally, resources should be made available to **fast-track development and utilization of tele-medical capacity** to enhance access to vital subspecialty services.
- 7. Many of the devastated communities were transportation-disadvantaged prior to the hurricane. What little public transportation infrastructure existed is now gone. CHF strongly recommends that the reconstruction process include appropriate planning and targeted resources to support development of a transportation system that will enable access to health and human services in disadvantaged communities.
- 8. The long term effects of Hurricane Katrina will be felt not only by survivors and evacuees, but also relief workers trying to cope with the extent of the disaster. Mental health needs are urgent, especially for those whose experience was traumatic when seeking shelter. The rapid expansion of people impoverished and in need of mental health services may overwhelm states. The federal government should permit Katrina affected states to provide enhanced mental health benefits under Medicaid to individuals with incomes up to 100% of the FPL. Congress and the President should also increase funding for Children's Mental Health Services in HHS, for which the Administration proposed no increase this year.
- 9. Prior to Katrina, Louisiana had a well established system of school based health services. The federal government should appropriate funding to support continued availability of school based health services and to help schools to

function as referral centers to local service providers for both students and their families.

10. A high level, empowered **oversight commission should be appointed by the president** and the Congress to oversee and monitor the implementation, and assess the impact and accountability, of a "Health Care Marshall Plan" for the Gulf Region.

Conclusion

The Children's Health Fund recognizes that the nation's response to the critical needs of our Gulf Coast communities as one of the foremost health, and public health, challenges of our time. New studies reveal the extent and severity of the medical and mental health crisis now at hand. This requires immediate, high level attention.

Unfortunately, recent press coverage of the plight of the affected communities, and the seemingly receding national awareness and interest in bringing the necessary resources to bear to adequately address the ongoing crisis, indicate a dangerous apathy on the part of the nation's leaders. Review of pending federal legislative and budget efforts indicate awareness of outstanding problems in the areas of housing, economic development, etc, with minimal focus on issues regarding the health and well being of the most vulnerable population, poor and disadvantaged children.

Finally, the scope of the planned reconstruction of the disaster-ravaged Gulf region presents an unprecedented opportunity to shape the rebuilding of some of America's most medically-disadvantaged communities, now ravaged by one of the most devastating natural disasters in American history.

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APPENDIX: EXECUTIVE SUMMARY

On the Edge: Children and Families Displaced by Hurricanes Katrina and Rita Face a Looming Medical and Mental Health Crisis



On the Edge: Children and Families Displaced by Hurricanes Katrina and Rita Face a Looming Medical and Mental Health Crisis



EXECUTIVE SUMMARY

Prepared by David Abramson, PhD MPH & Richard Garfield, RN DrPH National Center for Disaster Preparedness & Operation Assist RELEASE DATE: April 17, 2006

Louisiana Child & Family Health Study

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This study was approved by the Columbia University Medical Center Institutional Review Board.

We are particularly grateful to all the people in Louisiana who shared their time and their experiences with us. We take their trust in us seriously, and hope that our project serves to amplify the voice of the displaced populations throughout the Gulf Coast, and speed their recovery.

Project oversight was provided by Irwin Redlener, MD, Director of the National Center for Disaster Preparedness and President of The Children's Health Fund, and Alison Greene, JD, Director of Operation Assist. Considerable guidance, support, and assistance was provided by Drs. Erin Brewer, Jimmy Guidry, Roxeane Townsend, and Fred Cerise, of the Louisiana Department of Health and Hospitals; Dr. Eric Baumgartner of the Louisiana Public Health Institute; Drs. Stephanie Tortu, Ed Peters, and Dean Elizabeth Fontham, of the Louisiana State University School of Public Health; and Dr. Tom Farley of the Tulane University School of Public Health and Tropical Medicine. Extensive operational and logistical support was provided by Kate Hurowitz and Jeb Weisman of Operation Assist and The Children's Health Fund. Mapping and GIS support was donated by Laura Kurgan and Sarah Williams of the Spatial Information Design Lab of Columbia University's School of Architecture, Planning and Preservation. The study benefitted tremendously from the volunteer effort of public health graduate students from the three partnering universities, and their professionalism, compassion, and fortitude bodes well for the coming generation of public health professionals. The cover photograph of a devastated house in the Lower Ninth Ward was taken by Jed Oppenheim on Feb. 21, 2006.

This study is a public health assessment and research project of the National Center for Disaster Preparedness, supported by Operation Assist and The Children's Health Fund. Its contents are solely the responsibility of the authors and do not necessarily represent the views of The Children's Health Fund or the National Center for Disaster Preparedness. Please address all correspondence to Dr. David Abramson, Columbia University Mailman School of Public Health, 722 West 168th Street, New York NY 10032, <a href="mailto:d

Executive Summary

■he individuals and families who were displaced by Hurricanes Katrina and Rita and who have ended up in FEMA-subsidized community housing in Louisiana are facing a second crisis, one in which untreated and undertreated chronic medical problems and incipient mental health issues will overwhelm patients and providers. Among the displaced, children may be particularly vulnerable. In New Orleans alone, approximately 110,000 children under age eighteen – 85% of the pre-Katrina pediatric population – have not returned to the city since the hurricanes. These children, and others from outside of New Orleans, have been scattered throughout the Gulf Coast and across the fifty states. Louisiana's school enrollment dropped by 70,000 students, many of whom have resettled in other states, some who have not yet returned to school in Louisiana. The Louisiana Child & Family Health Study focused on the displaced population living in FEMA-subsidized housing in Louisiana, and who may be among the most needy. According to interviews with adults in 665 randomly selected households at trailer communities and hotels throughout the state, this displaced group of children and families suffers from a constellation of serious medical and mental health problems. Parents report high rates of asthma, behavioral problems, and learning disabilities among their children. Despite that, access to continuous medical care, appropriate mental health care, medications, specialized medical equipment, and specialty medical care, is either fragmented at best, or absent altogether.

The medical and mental health needs documented in this report may be regarded as the consequence of inadequately treated chronic diseases, psychological and emotional traumas secondary to the chaos and despair of a massive dislocation, and the social deprivations of the chronically-poor and the newly-impoverished. At a deeper level, though, the problems relate to the loss of stability in people's lives: families that are increasingly fragile, children who are disengaged from schools, and the wholesale loss of community, workplace, and health care providers and institutions.

How the Study was Conducted

During the period of February 11 through February 20, 2006, the Columbia-led Louisiana Child & Family Health Study, working in partnership with the Louisiana Department of Health and Hospitals, conducted a rapid assessment among Louisiana residents displaced by Hurricanes Katrina and Rita. The purpose of the study was to gather information that could inform local, state, and federal policymakers about the health and social service needs of displaced populations living in transitional community-based settings, such as trailer parks and hotels. Following a multi-stage sampling strategy based on lists of trailer parks and hotels with FEMA-subsidized housing units, 665 randomly-selected households were recruited in to the study, establishing a cohort representative of the over 12,000 displaced households living in FEMA-sponsored community-based housing as of January 31, 2006. The study also collected data on a randomized selection of children within the sampled households.

Key Findings

Children suffer from high rates of chronic health conditions and poor access to care

• 34% of children living in FEMA-subsidized community settings have at least one

diagnosed chronic medical condition, a rate one-third higher than that of the general pediatric population in the United States. Compared to children surveyed in urban areas in Louisiana in 2003, the displaced children are more likely to suffer from asthma, behavioral or conduct problems, developmental delay or physical impairment, and learning disabilities.

- Nearly half the children who had a personal medical doctor who knew their medical history a "medical home" before Katrina did not have one after the hurricane. Several parents who reported that their child still had a personal medical doctor noted that they had not tried to contact the doctor since the hurricane, and were not sure where the doctor had moved or how to contact the physician.
- A number of parents reported that they had a child who was either hospitalized or required repeated visits to the emergency room for acute asthmatic episodes because they could not get their child's asthmatic medications. The reasons cited included the loss of medical records, lack of insurance coverage accepted at local pharmacies, inability to get to pharmacies, and medical providers who would not prescribe the medications because they were unfamiliar with the child's past medical history. One parent noted that her child could not receive medications for ADHD and depression until the social worker had completed a 45-day evaluation period, again a consequence of lost medical records and discontinuous medical care.
- Among the children who needed prescription medication in the prior three months, 14% did not receive all their prescribed medications, a rate seven times as high as that reported by parents of children surveyed in Louisiana in 2003.
- Parents in the displaced population are more likely to report that their children's health is fair or poor (11%), a rate over three times as high as the general pediatric population in the US, as reported by parents surveyed in 2003.
- Among children who needed specialized medical equipment, such as nebulizers, 61% of the parents reported that it proved to be a "big" or "moderate" problem to get the equipment. Among the parents surveyed pre-Katrina in urban areas of Louisiana, only 17% reported such problems.

Mental health is a significant issue for both parents and children

- Nearly half of the parents surveyed reported that at least one child in their household had emotional or behavioral difficulties that he or she didn't have before the hurricane, such as feeling sad or depressed, being nervous or afraid, or having problems sleeping or getting along with others.
- Parents, and mothers in particular, scored very low on a standardized mental health screening tool, one which has been widely used to measure the extent to which poor mental health interferes with daily activities. Over half of the women caregivers scored at levels consistent with clinically-diagnosed psychiatric problems, such as depression or anxiety disorders. Children whose parents scored very low on this mental health score were two and a half times as likely to have experienced emotional or behavioral problems after the hurricane, according to the parents. Additionally, women caregivers were six times as likely to report that they were not coping well with the daily demands of parenting when compared to parents in a pre-Katrina survey of urban Louisianans.

Several parents and caregivers reported difficulties finding appropriate and accessible mental health services. One parent, whose 6-year old was on an 18-month waiting list for psychiatric care, was told that she still needed a referral from her primary care physician even though he had relocated to Puerto Rico after the hurricane. Several respondents noted it was increasingly difficult or impossible for them to maintain their own prescribed psychotropic medications, either because they could not find appropriate psychiatric help or their medical records had been lost.

The safety nets designed to protect children's and family's welfare have major gaps

- Over one-fifth of the school-age children who were displaced were either not in school, or had missed 10 or more days of school in the past month.
- 44% of the caregivers surveyed reported that they did not have health insurance, although nearly half had at least one chronic medical condition. A number indicated that they had lost their insurance when they lost their jobs subsequent to the storm. 10% of children were uninsured.
- Several caregivers noted the inter-state differences they experienced in service availability after the hurricane. One grandparent caring for her seven grandchildren noted that when she was evacuated to Texas she was eligible for and received both Medicaid coverage and food stamps, both of which were denied when she returned to Louisiana, suggesting a difference in program requirements and eligibility criteria. A parent of a child with muscular dystrophy reported that when she was evacuated to Virginia, her child had access to both medications and medical services, both of which have proved to be bigger problems upon her return to Louisiana.

The displaced have lost stability, income, and security

- On average, households have moved 3.5 times since the hurricane, some as many as nine times, often across state lines. Each move involved various issues of resettlement, and a number of parents described lags in re-enrolling children at a new school with each move.
- Nearly two-thirds of the households had at least one adult with a full-time or parttime job prior to Katrina, whereas only 45% had a salaried wage-earner after the hurricane. This drop in income of twenty percentage points was not offset by an increase in public benefits.
- Nearly half of parents and other caregivers believe that their children are either never or only sometimes safe in their community, compared to 21% of caregivers answering the same question in urban Louisiana pre-Katrina. 69% of caregivers believed there were people in their current nieghborhood who would be a bad influence on their children, compared to 52% of caregivers pre-Katrina.
- There was an ongoing need reported for specific services, particularly regarding financial matters (72% of households had a need in the past 3 months), household items or clothing (60%), and food, groceries, or meals (52%). A number of respondents noted that since FEMA had discontinued paying for the propane tanks for their trailers (a policy implemented during the study's fieldwork)

they had elected to turn off the heat in their trailers and sharply curtail the use of hot water.

Virtually all the respondents in the study came from one of five Louisiana parishes – Orleans (65%), Saint Bernard (11%), Saint Tammany (10%), Jefferson (7%), and Plaquemines (4%) – which were among the hardest hit by Katrina, and many of which are years from being redeveloped. 58% of the respondents would like to return to their former neighborhood, 30% would like to relocate elsewhere (including a number of respondents interested in purchasing their FEMA-subsidized travel trailers and then moving them elsewhere), and 11% were still unsure as to their future plans.

Summary

Failing to stabilize the systems of care in people's lives will likely have long-term consequences. Parents' mental health issues, such as untreated depression, have been shown to increase the risk of mental health disability among children, many of whom are traumatized and already psychologically vulnerable; the lack of sufficient school-based services and capacity, as well as students own lack of attendance, will likely lead to diminished academic performance and advancement, further limiting their economic opportunities; and social isolation may lead to increased risk behaviors such as drug use, which in turn increases the hazards of communicable disease, crime, and incarceration. Although these outcomes are far from assured, the absence of systems of care to address them now makes them far more likely to occur in the future.

Furthermore, the needs and system-wide gaps evidenced by the massive dislocation of an urban population suggest a review of disaster preparedness planning for both mid-term and long-term recovery efforts by government and private sector providers, in particular the need to develop plans for reconstituting medical care and mental health systems and providing for continuity of care. Much as Hurricane Katrina served as a sobering test of the protocols of the newly-drafted National Response Plan and of state and local emergency response plans, it has also tested – and severely strained – the capacity of local health systems and public health departments to manage major population shifts and provider losses and still deliver preventive, chronic, and acute care services.

As lessons are drawn to ensure future preparedness, four systems deserve particular attention. The problems experienced by Louisiana's displaced children and families can be related to breakdowns in systems related to (1) access to care, (2) availability of ongoing primary, mental health, and dental care, (3) assurance of continuity of care, and (4) the ability of schools to reach out and engage students and their families. Making these system-wide issues even more challenging is the scope of these safety nets, which often have to be stretched to cover displaced populations across county and sometimes state lines. As noted above, respondents in this study reported problems related to loss of medical insurance subsequent to losing their jobs in the wake of the hurricane, their inability to qualify for or receive specific social welfare benefits (despite having qualified in a neighboring state), and maintaining medications and continuous medical care in the face of lost medical records. These problems suggest the need for post-disaster systems that can sustain long-term preventive and primary care, and assure access to medical records (perhaps through the use of such strategies as a standardized patient-held medical record, electronic medical records, or statewide registries of disaster victims). Equally important for children who find themselves displaced for long periods of time are stable school environments. In the aftermath of such major dislocations, school systems may need to institute outreach

programs to expedite enrollment in schools and case-manage cases of disengagement or missed school days, as well as serving as a referral point for local service providers for both students and their families.

Finally, the data fail to capture what is immediately evident to even the most casual observer of the trailer communities. As emergency and transitional housing settings, the FEMA-developed trailer parks are more than adequate, providing residents with the essentials of private shelter, water, and sanitation. However, once the "emergent" phase is over the trailer parks evolve in to semi-permanent communities, and in this light they are often dismal and desolate. Hastily erected on available parcels of land, often in undesirable locations such as on the edge of a commercial airport, the parks feel more like military encampments than family neighborhoods. In contrast, the private trailer communities, most of which were well-established years before the hurricane and which often reflect an aesthetic of design and planning, feel more like established neighborhoods. There may be a lesson for preparedness planners from housing experiments such as Chicago's Gatreaux Program, in which public housing residents were resettled in scatter-site fashion in higher-income suburban settings, and who subsequently experienced better health, educational, and economic outcomes. If a relocation might last longer than six months, it may be worthwhile to consider a secondary resettlement of small clusters of residents from FEMA-style trailer parks to well-established "healthy" neighborhoods, taking in to account the incentives necessary for both the relocating residents and the recipient communities.